A Counterblast against the Monstrous Regiment of Corporations
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[An abridged version of this article appeared the Jan/Feb 2018 issue of Resurgence magazine at https://www.resurgence.org/magazine/article5036-the-monstrous-regiment-of-corporations.html. Below is the full unabridged text.]

Prologue
A monster is eating Europe -- the monster of corporatism. And it isn't just eating Europe; it has already devoured the United States, and is busy swallowing Asia, Africa, Oceania and the rest of the Americas. It is even nibbling at Antarctica. And it isn't just one monster; it's a whole tribe of them.

A little more than four centuries ago, the burghers of Amsterdam brought forth a novel creature whose kind had never before been seen on this planet. They called it VOC. This was the first, fragile example of a predatory species whose descendants would one day take control not only of Amsterdam, but the whole human world. Yes, I'm talking about the joint-stock corporation.

What Rough Beast?
In recent years, public figures such as Stephen Hawking and Elon Musk have begun to warn that efforts to create intelligent systems by workers in the field of Artificial Intelligence (AI) may do more harm to us by succeeding than by failing (Sainato, 2015). They believe that we humans have only a few years to prepare to deal with the disruption caused by the advent of superintelligent machines.

In fact, intelligent artificial systems have been in existence for hundreds of years, hiding in plain sight. We think of them as part of the natural order of things, like gravity or growing old. We fail to see them as what they are, artificial contrivances. A mistake made by those who rightly warn of dangers to come from intelligent systems is that they assume that the successors of the human race must be bizarre novelties -- perhaps genetically engineered trans-humans or else conscious computers. But that isn't how nature works. The major breakthroughs in biological complexity tend to be symbiotic organisms that incorporate previously independent entities.

Animal cells, for example, contain mitochondria as power units. This symbiosis began a couple of billion years ago: "one fine morning, two thousand million years ago, a cousin of these simple cells engulfed a bacterium, and for some reason failed to digest it" (Lane, 2005, p. 44). Our human digestion exhibits another sort of symbiosis: only with the help of trillions of bacteria living and breeding inside our guts do we draw nourishment from our food (Moalem, 2014).

Another similar great engulfment is now well under way. In effect, we are becoming the gut bacteria of a particular kind of complex system to which we gave birth. Organic evolution has always been opportunistic, and here again we see a new level of complexity emerging not completely afresh but in large part by yoking together components already existing at a "lower" level -- in this case us.

The giant corporations that determine how we live our lives are also highly complex composite entities. Legally speaking, they are variations on the theme of the limited-liability joint-stock company, a kind of entity that can trace its origin back to the Dutch VOC (Verenigde Oostindische Compagnie, meaning United East India Company) founded in 1602. Most accounts of the concept of the joint-stock company treat it as a legal fiction. It is that, but it has become much more than that. Once a company is created, a new person -- in law -- has come into being. A notable difference from
persons born to human mothers, however, is that this legal person can own other companies, i.e. other persons, something which would be outlawed as slavery if owner and owned were human beings.

A vital point about corporations, in their current state of evolution, is that they are active agents. They have aims and objectives, and they use people as means of achieving these ends. They don’t literally metabolize, and they don’t literally reproduce -- at least, not in the ways that plants and animals do. But they have goals, they carry out actions to achieve these goals and they certainly take in and process energy and resources, extruding waste products as a result. Crucially, from a human viewpoint, they have rights. Our laws grant these beings rights that are only otherwise given to people. In many modern jurisdictions, they possess more legal rights than human beings. Large corporations have found these to be a highly effective means of enforcing their dominance.

To those who still remain to be convinced that transnational corporations have established themselves as the apex predator on our planet, I recommend the book When Corporations Rule the World, by David Korten (2015). Commenting on developments between the 1995 and the 2015 editions of his book, Korten writes:

"Do corporations rule the world? Events of the past twenty years have erased all trace of doubt. Indeed, they do. And the consequences are dire." -- Korten (2015, p. 330).

Big Data + Big Business = Big Trouble
It is within this context that Artificial Intelligence (AI) presents a threat. Having objectives, exercising legal rights, storing and processing information to guide their decisions -- all these functions have been going on for centuries, with companies’ “thought processes” emerging as the consequences of coordinated actions by staff and other stakeholders. Ruthless exploitation of people and natural resources to achieve corporate objectives is nothing new either. Both the Dutch and British East India Companies were notorious for such practices, which continue worldwide today. All this has been achieved by co-opting humans to serve corporate purposes.

Exponentially increasing computer power, however, and particularly the increasingly sophisticated problem-solving promised by advances in Artificial Intelligence, will make the supreme (and inhuman) goal of "maximizing shareholder value" even more dangerous than hitherto.

Until quite recently, corporations needed some people (not very many) to formulate their plans and take decisions as well as other people (a considerably larger number) to execute them. Genuine machine intelligence would radically change that situation. Many well-informed observers believe that machine learning algorithms applied to petabytes of data will prove the key not merely to beating the best players of Go in the world (Koch, 2016; Cadell, 2017) but to out-thinking any human in any area of intellectual skill. Since these vast databases will be under control of vast corporations that will imply that those corporations have become the most intelligent entities on the planet. Considering the ways in which, throughout history, we humans have treated less intellectually capable creatures, that is a chilling prospect.

Modern corporations need three main types of gut bacteria: (1) a small cadre of directors and higher executives; (2) a somewhat larger group of staff or workers; (3) as many customers, “consumers”, as possible.

The first group have been handsomely rewarded. They doubtless see themselves as indispensable. They are wrong to be complacent. It would be surprising if beings with a superhuman level of ingenuity couldn’t find a way to render these people superfluous too.
As for the second group, firms are finding ever more ingenious ways to do without them. It is hardly far-fetched to envisage this category being eliminated altogether. That is the end towards which automation is tending.


However, we’re not talking about Henry Ford. We’re talking about superhuman intelligences. By definition they will be able to outwit us. They will be able to solve problems that baffle the best minds ever born. The crash of 2008 made plain the fact that the trillions upon trillions of dollars traded in the world economy (many times more than the value of all global assets combined) were largely imaginary. For many years the profits to be made from arbitrage, derivative trading, hedging and various forms of convoluted inter-corporate speculation have dwarfed those achievable by physical exchanges. Financial firms create money out of electrons and photons, and there is no shortage of them. In effect, the great bulk of the world economy is a gigantic computer game. Who better to win a computer game than a computer?

In other words, the biggest and most profitable part of the global economy is already almost entirely divorced from what ordinary folk would think of as reality. It would be most unwise to assume that it isn't possible to uncouple this casino in the cloud, where the most extreme profits are made, from the kind of mundane real-world objects that matter to humans and other living beings. An inhuman but hyperintelligent system might consider that more profitable, more efficient and thus more desirable; and we have already acknowledged that such entities have the equivalent of desires. They will certainly have greater ability to fulfil their desires than any mere human. Who’s to say that they won't desire to inhabit a virtual world that can be constructed and maintained without human interference?

We may not be smart enough to work out how to achieve such a state, but we ought to be smart enough not to rule it out -- and to take steps to prevent it from happening.

What Needs to be Done

Many people over many years have raised concerns about the environmental, financial and social crises that face human civilization in the 21st century, largely driven by a financial/economic system with huge corporations at its heart. Activists protest against corporate power; commentators recommend better codes of "corporate governance". Some of the latter seem to think that giant corporations can become more socially responsible or more environmentally conscious, and thus that human well-being can be secured within the current economic model, without abolishing the joint-stock company (e.g. Hawken et al., 1999; Diamond, 2011). I believe this is a delusion. In my view, the only way to create a civilization on a global scale that promotes human welfare will be to curb the power of giant corporations and eventually render them extinct.

Eradicating the whole species of corporations as they are presently constituted is a daunting task. The forces ranged against such a change are simply overwhelming. My guess is that we won’t manage it. Maybe that is why virtually nobody is seriously suggesting it. But if we don’t even try, we’re sure to fail; and it is possible to imagine how it might be done, at least in outline.

First of all it should be stated that people have always traded and if civilization survives will want to carry on trading. We will still need to do business, we just need a very different framework within which to conduct it. It isn’t as if the joint-stock corporation is the only way that people can combine to achieve common objectives. There are plenty of army regiments, clubs, mutual societies, NGOs,
Oxbridge colleges, partnerships, political parties and religious orders operating today -- to name just a few of the hundreds of other forms of organization in existence. We could also mention less salubrious collectives like crime syndicates. In remote areas of Amazonia and New Guinea hunter-gatherer tribes still exist. A particularly promising organization type, in the present context, is the workers’ co-operative, a business structure that has been shown to out-perform the joint-stock company in many respects, including productivity (Perotin, 2016).

Thus it should not be beyond the wit of humankind to devise a vehicle for collaboratively pursuing our economic aims which does not suffer the pathologies of the modern transnational corporation. The tricky part will be ensuring that it replaces that structure.

What is needed is a task force with heavyweight intellectual resources, on a par with those available to the wartime Manhattan Project. This task force will be charged with the following objectives, listed in order of increasing difficulty:

- spreading public awareness of the dangers inherent in the rise of transnational corporations;
- conceiving a safe form of economic combination to replace transnational corporations;
- devising a way of replacing our current corporate model with a better one, worldwide, without lethal violence.

Such a task force will be expensive, but it would only require a couple of renegade billionaires to have a quasi-Pauline conversion to ensure adequate funding.

As it happens, there already exists an Institute for New Economic Thinking https://www.ineteconomics.org/about but from what I gather by perusing its website, it has lapsed into the comfortable academic game of conferences and position papers. The site offers plenty of articles and reports detailing various undesirable consequences of our predominant forms of economic activity, but they exhibit no great sense of urgency. Some authors suggest amendments to some of the counterproductive ways in which institutions like the IMF or World Bank operate. Others are concerned to bring the "dismal science" (that is, economics as an academic discipline) more into line with what happens in the real world. But I gain no sense of impending crisis from visiting this website.

For example, Lazonick (2016) clearly sees the harm done by what he terms "value-extracting" CEOs of major corporations, yet his policy recommendations are rather tame. They include banning stock buybacks and putting representatives of customers, suppliers and workers on company boards -- nothing too radical, in other words. Such measures, he believes, will help "attain the objectives of stable and equitable economic growth." He appears to regard endless economic growth as desirable. It would seem that "new economic thinking" is not very different from old economic thinking.

It is harsh to denigrate thinkers who realize that something is wrong with the current global economic system, but I’m sure that minor tinkering is woefully inadequate. Thus the task force I envisage would have to avoid recruiting those whose attitude is: business almost as usual. It will be necessary to exclude altogether high-flyers in the worlds of business and finance, as well as all but the most maverick academic economists.

Who should be recruited into this task force? I suggest a motley collection including mathematicians, musicians, military strategists and natural scientists. A few wayward entrepreneurs and hotshot traders, provided that they sincerely repent their lucrative misdeeds, might not go amiss. In any case, movers and shakers from the current world of economics, finance and politics should be eschewed. The people needed will have to be persuaded that it is their civic duty to take years away
from what they really want to do in order to solve a problem facing the whole of humanity. This shows that merely funding, recruiting and motivating the right sort of people will be major challenges. But they will be the least of the problems facing the task force.

Towards Convivial Collectives
Most people simply do not realize the grave danger we’re in. Moreover, the small minority who have serious concerns don’t seem to recognize the primary culprit. They protest about environmental degradation, global warming, huge disparities in wealth and so forth, but propose solutions that leave our economic structures essentially intact.

The downfall of humanity is being engineered all around us, with our complicity. Somehow our brains-trust of free-thinkers will have to convince billions of people that there is a systemic problem which represents a menace to our survival. It will take ingenuity and perseverance surpassing that of even the most successful advertising campaign to generate the worldwide groundswell of opinion that will be a necessary prelude to overthrowing the hegemony of corporate power; but that just takes us to base camp. Convincing people that there is something dangerously wrong with global corporate rule won't suffice unless we have a realistic alternative to put in its place.

My guess is that something like a mutual society or a workers' co-operative would be a good place to start looking for a better model of economic organization. Alternative pointers towards less pathological forms of business enterprise can be found in the later chapters of Small is Beautiful (Schumacher, 1974), not least the example of the Scott Bader Commonwealth http://www.scottbader.com/index.php/about-us which is still going strong today after 66 years swimming against the corporatist tide. But such things, I suspect, are only prototypes of what will ultimately be needed. We will undoubtedly have to redefine the fundamental concept of ownership, especially ownership of land. Laws that enshrine the rights of corporations will have to be comprehensively rewritten; for instance, to outlaw tangled webs of inter-corporate ownership.

There will need to be checks and balances that guard against subversion, yet without going against the grain of human nature. We cannot expect inhuman levels of altruism or wisdom from human beings. Above all, our novel form of joint enterprise should avoid rewarding antisocial behaviour, which is regrettably normal in today's global corporate system.

Nobody currently has a comprehensive answer, which is why I argue for a generously-resourced task force with a degree of intellectual fire-power seldom brought together in a concerted attack on a social problem in the long history of political science. What is required is something like Bletchley Park in World War II -- only more so. Nothing like it has been seen in peacetime.

Still, it is possible to guess some of the characteristics that the new form of economic collaboration might possess. First and foremost, it could not issue tradeable shares. Bonds might be permitted, but the notion of shareholder value has done more than enough harm already.

It is easy to imagine the virulence of the fight-back by wealthy vested interests that would be provoked by the merest hint that such ideas were being taken seriously.

Making it Happen
This is where the real life-or-death struggle begins. Our band of innovators would have already excelled themselves by devising a fresh framework for commercial collaboration, immune to being hijacked by special interests or artificial intelligences. Then they would have to excel themselves again. They would have to come up with a workable plan of implementation. Legions of powerful
people -- the sort who turn up to forums in Davos in private jets -- will have to assent to a process by which the basis of their power will be undermined. It will have to happen by consent, without warfare or civil strife, within decades. Can you work out how that could be done? Me neither. But if it isn’t, we’re doomed.

**WANTED**: highly intelligent individuals prepared to devote themselves for at least 10 years to a near-impossible set of tasks, beginning by acquiring funds enabling them to devise a framework for completely replacing our economic system with something altogether less destructive, and then performing the virtuoso communicative ju-jitsu necessary to convince the holders of economic and political power to make the changes necessary to bring this about without violence. Not forgetting the need to establish robust institutional safeguards against later back-sliding, should these momentous changes ever be achieved. This endeavour is arguably more difficult than anything achieved by any group of humans ever.

**What are you waiting for? Your planet needs you!**

**Acknowledgement**
I am grateful to Dr Phoenix Lam for comments on an earlier draft that helped to improve this article.

**References**


Monstrous Regiment is the 31st novel in Terry Pratchett's Discworld series. It takes its name from the 16th century tract by Protestant John Knox against the Catholic female sovereigns of the day, the full title of which is The First Blast of the Trumpet Against the Monstrous Regiment of Women. In it he argued that the Bible supported the position of men over women (Adam was born first) in governing the affairs of state. Knox believed that these Catholic female monarchs, in particular Queen Mary I of